CARE
and
MINOR REPAIRS
of the
CLARINET

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PART ONE

CARE OF YOUR CLARINET

In order for you to get the utmost in musical satisfaction and service that has been built into your clarinet, it is necessary that you give it proper care just as you would any other valued possession.

GREASING TENON CORKS

Your clarinet is made in five parts. These are (from top to bottom): mouthpiece, barrel, upper joint, lower joint, and bell. The barrel and bell are so called because of their similarity in shape to those objects. Care must be taken in assembling these parts together to prevent damage. The parts are held firmly together by means of tenon corks. These corks must fit very tightly when the instrument is new for cork will compress slightly when they are "broken in."

GREASING TENON CORK

The tenon corks must be given a thorough coat of cork grease before the instrument is put together. Apply "Kork-Eze" or other fine cork grease onto the tenon corks each time the clarinet is assembled for the first week and then only as needed to make the joints go together smoothly and easily.

ASSEMBLING THE CLARINET

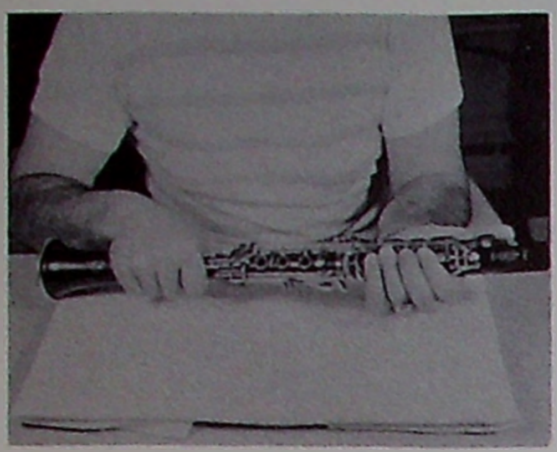
The following method is recommended as being the best and fastest method of assembling the clarinet:

Step 1 - Place the lower joint in the palm of the right hand with the mechanism up. Hold the joint so that the fingers do not exert pressure on the clarinet rods. Pick up the bell in the left hand and place it on the lower joint with a gentle twisting motion.

STEP I

Step II - Hold the upper joint in the left hand with the mechanism up. Place the thumb alongside the keys and the fingers in the vicinity of the tone holes. Lay the

fingers over the keys so as to lift the upper bridge key on the upper or left hand

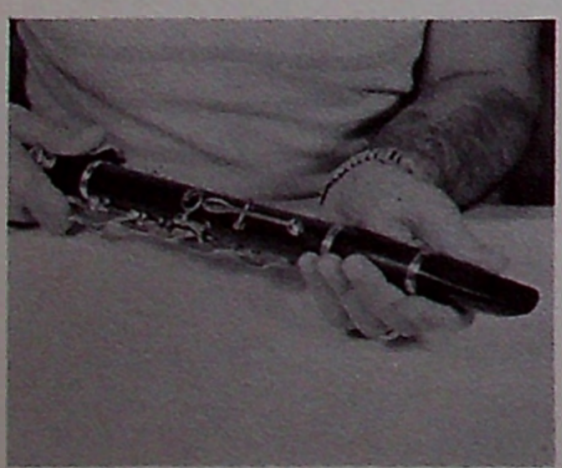


STEP II

joint. Twist the upper and lower joints together making certain that the bridge mechanism which connects the two joints is in line.

Step III - While continuing to hold the upper joint of the clarinet in the left hand, pick up the barrel joint with your right hand. Place it on the upper joint with a gentle twisting motion.

Step IV - Remove the mouthpiece cap, ligature and reed from the mouthpiece. Hold the



STEP IV

clarinet by the barrel joint and insert the clarinet mouthpiece with a gentle twisting motion. Line the mouthpiece up with the clarinet so that the flat "table" of the mouthpiece is in line with the register key.

Placing the Reed on the Mouthpiece

Step V - After soaking the reed in your mouth, place it on the flat portion (lay) of the mouthpiece with your right hand, then hold it in position with your left hand.

STEP V

Place the ligature on the mouthpiece with your right hand so that the screws are over the reed.

Position the reed so that it is on the middle of the facing. Generally, the tip of

the reed will be even with the tip of the mouthpiece, but this may vary slightly with the strength of the reed. The position of the reed on the mouthpiece has a great effect on the way the instrument plays. Be careful when placing the ligature over the reed so that the reed is not chipped. Make

DO NOT "OVER-TIGHTEN" LIGATURE

certain that the reed is straight and even on the mouthpiece facing. Be sure not to twist ligature screws too tightly.

DISASSEMBLING CLARINET

When you are finished playing, the instrument should be put away with the same care as it was assembled. Take the reed and ligature off the mouthpiece. Dry the reed carefully on a clean handkerchief and place it in your reed holder. Take the mouthpiece off the clarinet with a twisting motion. If it should be stuck, it can be freed with a slight rocking motion. Place the ligature and mouthpiece cap on the mouthpiece and return it to its place in the clarinet case.

The clarinet should be dried before it is put into the case. Hold the clarinet with the bell up. Drop the string

DO NOT FORGET TO SWAB

of the clarinet swab into the bell so the weight comes through the barrel joint. Draw the swab through the clarinet. A soft, absorbent swab should be used. Repeat until bore is dry.

To disassemble the clarinet, simply reverse the assembling process. Start at the top of the clarinet, taking each section off and putting it in the case.

Usually there will be some moisture in the tenon sockets, especially in the barrel joint. This moisture should be dried out of the tenons. This may be done by placing

the swab over the end of the index finger.

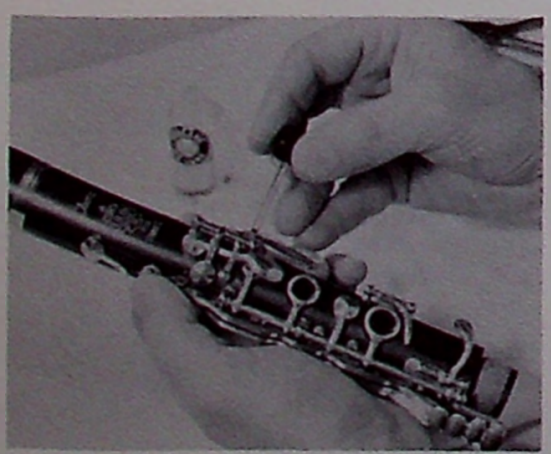
DRYING TENON SOCKET

CLEANING THE KEYS

After each time the clarinet is played, the mechanism should be wiped off with "Ke-Brite" or other fine polishing cloth. This is necessary because the acid may tarnish natural finished keys or corrode the plating of plated keys. If the mechanism is cleaned after each playing, it will stay new-looking for many years.

OILING THE MECHANISM

Your clarinet, like any fine piece of machinery, needs lubrication to function properly and give many years of troublefree service. The clarinet mechanism should receive a small drop of light oil once a month at all bearings. This will prevent the metal fromwearing rapidly or "freezing" together. "Ke-Lube" Key Oil and other high quality key oils have been developed especially for this purpose. The bottle is equipped to enable the player to deposit a small drop of oil at the end of each rod and hinge tubing.



OILING KEY MECHANISM

TREATING THE WOOD

Wood clarinets should receive a light coating of bore oil periodically. "Bor-Seal" Bore Oil is preferred because it forms a protective finish and will not harm the pads. This oil, when it dries in the bore, acts as a coating which slows the passage of moisture into the wood. Excessive moisture entering the wood is one of the causes of cracking.

To treat the clarinet bore, take the instrument apart and give the bore of each joint and tenon socket a light coat of oil. Let the oil dry overnight and the following morning wipe out any excess oil that might remain. The Ke-Bor Bore Oiler Kit has all needed equipment for oiling both the keys and bore of your clarinet. Detailed instructions are also included in the kit.

When your wood clarinet is new, oil the bore once a month for the first six months. After this period, oil the wood each six months.

CLEANING THE CLARINET

Dust will collect under the keys and mechanism of your clarinet. A small clean brush may be used to dust under the mechanism.

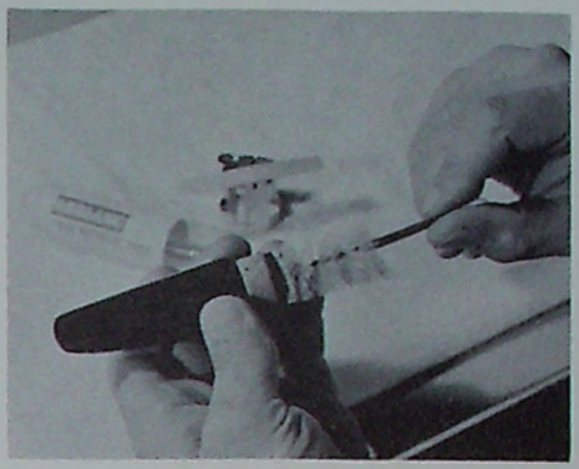
Dirt will often collect in the tone holes of your clarinet. This will cause faulty intonation and the tone will become fuzzy. The tone holes should be cleaned each

CLEANING TONE HOLES

month using "Q-Tips", or a dampened piece of soft cloth over a kitchen (wooden) match. "Q-Tips" are extremely handy for this job. Rub the inside of the tone holes gently to clean them.

CLEANING THE MOUTHPIECE

The mouthpiece should be cleaned once each week by running lukewarm water through it. Once each month, it should be washed in lukewarm soapy water. Running a soft cloth through the mouthpiece or using a mouthpiece brush will remove



BRUSHING MOUTHPIECE

any dirt that might lodge in the mouthpiece.

Do not run clarinet swabs, especially with metal tips, through the clarinet mouthpiece. This will cause the delicate edges of the mouthpiece facing to be chipped or worn away, which may ruin the mouthpiece. Avoid allowing your mouthpiece to become hot, either by leaving it in the sun, running hot water through it or leaving the mouthpiece near a radiator. This heat may cause the mouthpiece to become warped.

REVIEW - DO'S AND DON'TS

1. Don't assemble your clarinet if the metal tenon rings should be loose. The metal tenon rings are on the clarinet to protect the thin walls from cracking. If they are loose, they cannot give this needed protection and the thin tenon walls may crack.

2. **Do** swab out your clarinet and wipe off the mechanism each time the instrument is put away. "French Fashion" Swabs and "Ke-Brite" polishing cloths are ideal for these purposes.

3. **Don't** carry books and other objects in your case unless your case has a section designed for this purpose.

4. **Do** oil the mechanism and the bore of wood clarinets as mentioned. The Bore Oiling Kit contains complete equipment and instructions for using both the mechanism and wood of your clarinet.

5. **Don't** assemble your new clarinet until the tenon corks have been greased.

6. **Do** handle and care for your clarinet with the same consideration as you would any other expensive and important possession.

7. **Do** keep your clarinet in its case when not in use.

8. **Do** put the sections together carefully so as not to bend the keys.

9. **Do** keep your clarinet clean, always.

WOOD

Here are some important things you should know about the wood used in manufacturing clarinets. Over the years, many different types of wood have been used for the manufacture of clarinets, and one still finds clarinets being made of Maccassar and Rosewood. Grenadilla wood has proven the most ideal wood for clarinet making because of the fine tone it imparts to the instrument and because of its relative stability under varying conditions of temperature and humidity. Since there are many different kinds and qualities of grenadilla wood, the mere fact that a clarinet is made of grenadilla does not necessarily mean that the wood is of fine quality.

Selecting the proper wood is just the first step. Of even greater importance is how this wood is seasoned and prepared into the finished product. The length of seasoning time depends largely upon the density of the wood--the more dense the wood is, the longer the seasoning process.

Most manufacturers of commercial grade clarinets simply saw the wood into billets of convenient length. But the best method, in which the grenadilla is carefully hand-split, insures that each finished section follows the natural grain of the wood. This hand-splitting of the wood is accomplished by men highly trained in this one specialized job and greatly decreases the chances of cracking.

Fine "Select" grenadilla wood is dense hard and extremely close grained--thus

is capable of being worked to very close tolerances.

Stability of wood is extremely important, for the diameter of the bore determines pitch, intonation. Inferior wood that has great degrees of contraction and expansion is constantly changing pitch, making it next to impossible for the performer to maintain correct pitch with his fellow musicians.

HUMIDITY AND TEMPERATURE

The main reasons for wood instruments cracking can be traced primarily to two factors of environment---humidity and temperature. Excessive humidity, or lack of it, as well as sudden temperature changes to the hot or cold extremes, cause most of the cracking that occurs. The wood clarinet, being porous, will absorb water and expand. The effects of temperature also cause it to expand or contract. If a wood musical instrument can be kept in an atmosphere of even humidity and temperature during its entire life, it will probably never crack. But since this is not a probability, you must care for your clarinet properly. The actual cause of cracking generally is an uneven expansion.of the wood. I should point out that there are also what we refer to as "unknown factors"which might cause cracking of the wood. As we mentioned, oiling is probably the best method of moderating the moisture absorption of the wood.

Never leave your clarinet near a radiator, oven or other heat conductor. This may seem obvious, but many instruments have been cracked because of this. If a clarinet has been brought in from the cold outdoors, it is best to wait a few minutes till the clarinet has been warmed up before you play on it.

Wood is a product of nature. Any piece of wood may crack or split under certain conditions, and grenadilla wood is no exception.

Just how much affect does cracking have upon the clarinet? Usually it will not harm the clarinet, and the instrument will still be playable. You wouldn't replace the top section of a Stradivarius violin if it cracked. Too much emphasis has been placed upon the affects of cracking. Actually, the important aspects of a clarinet's greatness and playability are intonation, control, acoustical and mechanical superiority, and also, the degree of confidence that it builds within the performer.

PART TWO

MINOR ADJUSTMENTS AND REPAIR OF THE CLARINET

All band masters should have a working knowledge of minor adjustments and repair of the clarinet. All too often it happens that Johnny's pad will come out just before that important concert. It is essential that the basic ideas of care and adjustment be mastered. Major repairs, of course, should necessarily be handled by a competent repair man.

Tools may be purchased from your music dealer, who can order from the following companies:

FERREE'S MUSIC SUPPLY
110 Calhoun
Battle Creek, Michigan

- or -

ED MYERS.
3022 Pacific Street
Omaha, Nebraska

- or -

ERICK BRAND SUPPLY COMPANY
1117 W. Beardsley Avenue
Elkhart, Indiana

BASIC TOOLS

In order to facilitate minor repairs, a few tools and materials are necessary. You should equip yourself with the following tools:

1. FEELER GAUGE - This can be made by attaching the small red cellophane strip from a cigarette package to a suitable handle such as a wood match stick.

2. PAD SLICK - This is simply a flat piece of spring steel, .025 of an inch thick and having a circular tip somewhat larger than the clarinet pads.

3. CLARINET SCREWDRIVER - "Spinning Type" is handiest and most satisfactory.

4. RAWHIDE MALLET

5. ROUND NOSED PLYERS

6. FLAT NOSED PLYERS

7. FILE - Smooth out, Number 4

8. X-ACTO KNIFE SET - This can be obtained at any Hobby Shop.

9. ONE SPRING HOOK

10. ALCOHOL BURNER, OR BUNSEN BURNER

You should also have the following basic materials on hand:

1. PADS

2. ROUND SPRINGS

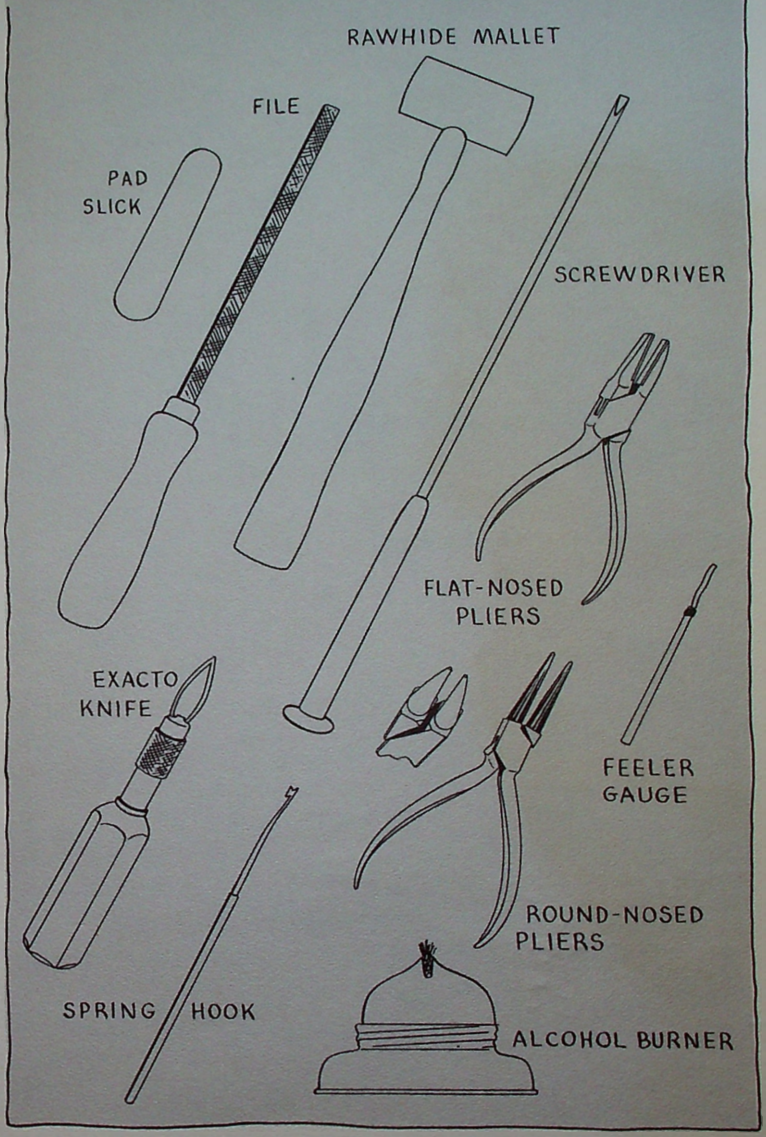
3. FLAT SPRINGS

4. CLARINET SCREWS

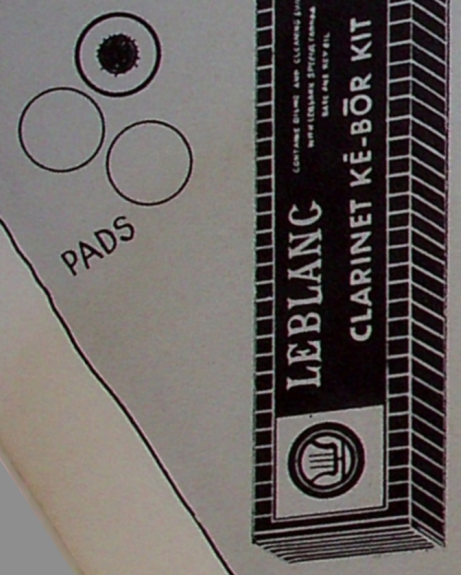
5. PAD CEMENT

6. CORK CEMENT

BASIC TOOLS


RAWHIDE MALLET
FILE
PAD
SLICK
SCREWDRIVER
FLAT-NOSED
PLIERS
EXACTO
KNIFE
FEELER
GAUGE
ROUND-NOSED
PLIERS
SPRING HOOK
ALCOHOL BURNER

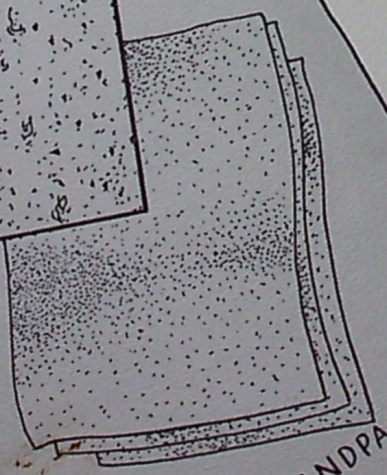
BASIC MATERIALS



KĒ-BRITE KIT

PAD CEMENT

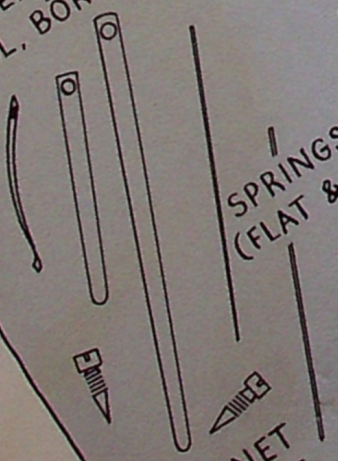
CORK



SANDPAPER

PADS

KĒ-BŌR KIT
(BŌR OILER, SWAB,
KĒ-OIL, BŌR OIL)



SPRINGS
(FLAT & ROUND)

CLARINET
SCREWS

CORK CEMENT

7. CORK - (1/64," 1/32," 1/16, and 1/8" thickness)

8. KEY-BRITE KIT

9. BORE OILING KIT - The "Ke-Bor" Oiler kit contains: bore oil, key oil, chamois swab, silk stick swab, bore oiler tube.

10. SANDPAPER

11. "Q-TIPS"

REPADDING A KEY

There are five basic steps in repadding a clarinet key. By following these simple directions, with a little practice, you should become proficient in this simple repair. The basic steps are:

1. Remove key.

2. Heat the pad cup over a bunsen burner, alcohol lamp, or match until the adhesive melts.

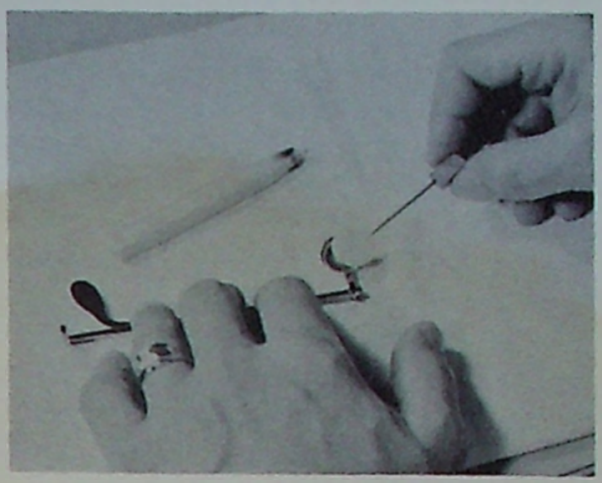
3. Remove the old pad from the cup.

4. Apply new adhesive and insert new pad.

5. Remount key on clarinet.

The pad can be placed in the cup by means of a needle which is stuck into a cork. The needle should puncture the pad on the edge so that the pad will not swell up because the air within the pad becomes warm.

Though these are the basic steps; it is also very important that you seat the pad correctly. This will be discussed in the next section. For your adhesive, it is recommended that you use either the "Pad-Stik", which is a wicker-type stick shellac, "Perma-Stick" French pad cement kit, or other fine pad cement. "Perma-Stick" contains three wax sticks, plus a tube of pad adhesive. This will not become brittle and greatly reduces pad noise and provides a permanent, non-hardening silent backing. "Pad-Stik" pad cement permits you to fix pads very quickly and positively.



PADDING IS EASY

SEATING THE PAD

After the pad has been inserted into the cup and the key remounted on the clarinet, insert the cellophane feeler gauge between the pad and the tone hole. Withdraw slowly, feeling the resistance. Do this around the entire pad. If, at any point, less resistance is felt, shift the pad by using the flat metal

"pad slick." Repeat this operation until you obtain the same resistance with the feeler gauge at every point where the pad and tone hole come in contact. After a while, you will develop the ability of knowing just how much resistance is desired on the feeler gauge. The "ridges" left by the tone hole on the pad should be right in the center of the pad. You can find out if the pad is "hitting" correctly by pressing the cup down over the tone hole, and then lifting it up to see the location of the "ridges."

CHECKING FOR LEAKS

There are several different ways of checking for leaks. One method is by using the feeler gauge, which is inserted between the pad and the tone hole and then withdrawn slowly, feeling the resistance. This should be done around the entire pad, and if at any time the resistance is much less, chances are that a leak occurs at that point.

Another method is to hold your hand over one end of the instrument (or place a cork in it) and with the other hand close all the necessary keys. Then, by lightly blowing in the other end, air will escape where it leaks. Be sure not to blow too hard, which spoils the effectiveness of this method. Some repairmen suck the air out of the joint to see if it creates a vacuum. This suction method is considered even better than the blowing method. These methods do not tell you where the leak occurs but only lets you know there is a leak. The suction method does not tell you about the spring tension, but the blowing method does. Both methods should be learned and developed.

It must be noted that when you use the feeler gauge method, you should not press the pads down too hard for this is not the natural pressure that the clarinetist would use.

Another method of testing for leaks is the "light method." This is accomplished by suspending a small electric light in the bore of the clarinet. It will work best if the light is directed at the tone hole over which the pad is being tested, and if this is done in a dark or dimly lit room. This method is much more satisfactory for saxophones than the clarinets as the bright brass of the bore reflects light better on saxophones.

STICKY PADS

Sticky pads are bothersome and greatly affect the clarinetists' performance. One way to eliminate this is to use a slight amount of powder on the pads. If this is not effective, place a piece of stiff paper between the pad and the tone hole. Hold down the cup with one finger, using a fair amount of pressure, and pull the paper out with the other hand. If this does not correct it, repeat this,

but moisten the paper slightly with alcohol.

TORN OR SPLIT SKIN ON PAD

When the pad is split and cannot be replaced in time, as a temporary emergency repair, take the cellophane from a cigarette or gum package and place it over the pad. Bring the edges of the cellophane up over the pad cup, twisting them together on the top of the cup. This will compensate temporarily for the split pad. This should be used only in extreme emergency when another pad is not available.

CLARINET PADS THAT HAVE FALLEN OUT

Usually there is enough adhesive left in the pad cup to hold the pad in place temporarily. Heat the back of the pad cup until the adhesive melts. Quickly insert the old pad back into the cup and then press the pad cup over the tone hole tightly.

If it is found that the pad is not seated correctly after the adhesive has hardened, heat the pad cup again with a match until the adhesive has softened, and then press the pad cup against the tone hole. Be very careful not to burn the pad.

CORKING KEYS AND JOINT TENONS

With the advent of "Perma-Kork" cement, the old fashioned methods of corking with shellac have become obsolete. The time-consuming task of melting the shellac on to the tenons, binding the cork around the tenon with string and allowing it to stand for twenty-four hours, is a thing of the past. It is now possible to effectively cork a tenon or key in less than ten minutes with a much stronger bond than was ever possible on the old method. By following these simple instructions you will find that corking keys or tenons is one of the easiest repair jobs.

Corking keys:

1. Remove old cork.

2. Clean surface thoroughly with Benzine or cleaning solution. Be sure that all the old shellac or cement is thoroughly removed.

3. Cut the cork in a rectangular shape slightly larger than the area to be covered. Be careful not to use a cork which is too thin. A cork which is too thick may be sanded down, but cork which is too thin is unsatisfactory.

4. Apply a thin coat of "Perma-Kork" cement to the key surface and also to the cork. Allow it to dry. This should take between 5 to 8 minutes.

5. Press cork tightly to key surface. "Perma-Kork" provides an instantaneous bond which saves many hours of needless labor.

6. Trim with X-acto knife to conform to the shape of the key.

7. Sand down with medium-fine sandpaper.

Recorking Joint Tenons:

1. Cut a rectangular piece of cork, 1/8 inch longer than the circumference of the bare tenon and exactly the desired width of the tenon.

2. Remove old cork from joint tenon.

3. Clean the tenon thoroughly with Benzine or cleaning solution so the old shellac or cement is removed.

4. Apply a thin coat of "Perma-Kork" cement, to both the tenon and the cork. Allow it to dry - five to eight minutes.

5. Holding the joint in your left hand, press the cork tightly around the tenon with your right thumb as you slowly twist the joint with your left hand. Be careful to get the cork on straight for the bond of "Perma-Kork" is instantaneous at this point; or you can roll the cork on the edge of a table, applying pressure as you roll.

CORKING THE TENON

6. Trim the cork with your X-acto knife so that the two ends meet exactly.

7. Sand cork down to desired thickness with medium-fine sandpaper, or file it down with a fine-cut file.

LOOSE RINGS

The small metal rings on the clarinet barrel and joints (tenon rings) act as a support for the wood where it is the thinnest. If these rings become loose, do not assemble the clarinet, for there is a great danger in breaking the female tenon.

You can temporarily correct the loose rings by inserting a piece of paper, thin cloth or sand paper between the rings and the wood. This will hold the joints tight until the instrument can be sent to a competent repairman. Only a repairman is equipped to do an adequate job of tightening these rings.

LOOSE CONNECTIONS DUE TO WORN CORK

If the cork is worn to the extent that there is a loose connection in the joints or mouthpiece, there are several temporary remedies you can

use till you have a chance to replace the cork. You may hold a match next to the cork, as you twist it gently, being careful not to burn it. In many cases this will expand the cork sufficiently to provide a snug fit. Do not place any more grease on the cork.

If heating the cork is not effective, simply wind a piece of paper, string or thread around the old cork. Be sure you remove excess cork grease before placing the paper on the cork.

STICKING OR BINDING KEYS

There are several causes of binding keys. This may be caused by bent, rusted or clogged hinge screws or pivot screws; contraction of the wood; or posts being out of line. There are several ways to correct binding of keys. These are:

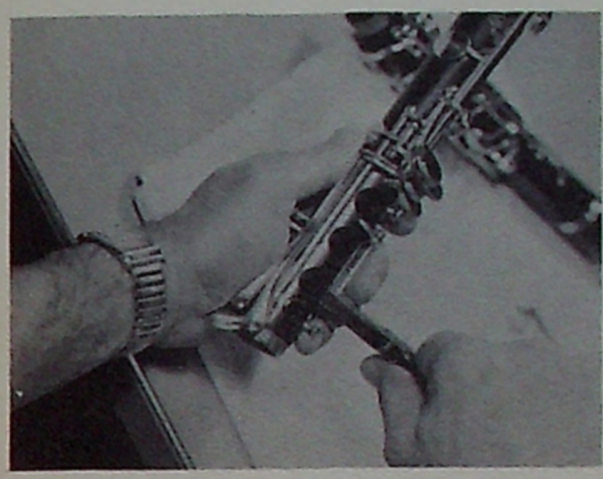
1. Remove hinge or pivot screws to see if they are free of rust, dirt or other deposits. Clean and oil these parts with "Ke-Lube" or other fine key oil.

2. If the binding persists, try loosening the hinge or pivot screw. Sometimes these screws are in too tight which may cause a binding of the key.

3. If the sticking still remains, tap the key against the post lightly with a rawhide mallet. If tapping the key toward one post is not effective, try tapping the key toward the opposite post.

TENSIONING OF SPRINGS

The ability to tension springs properly must be carefully developed. A spring cannot be tensioned by merely bending it. Use only the flat nosed plyers for tensioning the springs, beginning at the post and pulling out as you twist upward. A proper wrist action must be developed. Correct tensioning of springs is extremely important in creating the proper key feel and action.



TENSIONING SPRINGS

BROKEN SPRINGS

Flat springs: If a flat spring is broken, simply remove the key and the small screw that holds the flat spring in place. Replace and tension the spring, making sure the new spring is the same length and thickness as the old one.

Needle springs: Following are the five basic steps for replacing a broken needle spring.

1. Remove key.

2. Remove the broken spring with plyers.

3. Insert the new needle spring into the post and tighten by applying pressure to the flat end of spring with plyers.

4. Tension spring with flat nosed plyers and reassemble key.

5. If spring is broken off flush with the post, take it to a repairman who has the proper tools for this operation.

CLARINET PLAYING FLAT, SHARP, OR STUFFY

A very common problem of student clarinetists is playing flat, sharp, or stuffy. There are many reasons why this may occur, so to help you know better what to look for in determining the causes of this, the following reasons are listed:

1. The clarinet itself may be out of tune. There is nothing that can be done if the clarinet is out of tune within itself. For this reason it is of utmost importance that students start off with a clarinet that is built correctly in tune.

2. The distance of "key-travel" is important in determining correct intonation. If a key does not open far enough, the result will be a flat or stuffy tone. Likewise, if the key travel is too high, it will result in a sharp tone.

3. Leaks around the pad can cause a fuzzy tone or buzzing

"FEELER GAUGE" TEST FOR LEAKS

4. Many clarinets have rubber or plastic tone hole inserts instead of integral raised tone holes. Integral tone holes are a part of the clarinet, whereas the tone hole inserts are made of a different material than the clarinet and are screwed into the clarinet. The inserts in a clarinet body will expand and contract at different rates than the rest of the clarinet, often causing leakage around the inserts.

5. The strength of reeds have a definite effect on intonation. A reed that is too soft will often cause flatness of tone.

6. Mouthpieces, being at the beginning of the tone source, affect the intonation. Extreme dimension of facing, bore and tip opening can affect tone quality and intonation. The bore dimension of the mouthpiece at the point of contact with the clarinet should be identical to that

of the clarinet, since the mouthpiece is merely an extension of the clarinet. If the bore of the clarinet at that point is smaller or larger than the bore of the mouthpiece, intonation will definitely be affected.

7. Dirty tone holes, clogged up with foreign matter, will affect intonation. Tone holes should be kept clean at all times.

8. And last, but not least, the embouchure of the performer is of vital importance in regards to intonation. An incorrectly developed embouchure will naturally cause bad intonation problems.

SELECTION OF PADS

It must be pointed out first that the best type of pads to be used in your clarinet are bladder pads. Kid pads absorb saliva and become unpliable and hard. There have been attempts to use many different materials for pads, but as of this writing, the bladder pad remains superior. Generally, you should use the brand of pads that originally came on the clarinet. The reason is that pads come in various thicknesses, which affects the intonation, and the original pads are of the correct thickness. Noblet clarinet pads can be satisfactorily used on all French-made clarinets.

FROZEN SCREWS

Frozen screws are a problem which usually require the attention of a competent repairman with the tools necessary for removing the stuck screw. One thing that a band director can do for this is to apply a thin penetrating oil at both ends of the screw and allow the oil to sink in overnight. Often times the oil will penetrate enough to "de-freeze" the screw, thereby allowing it to be unscrewed easily. If this method fails, the repairman has alternate methods of removing the screw.

COST OF REPAIRING

What should you expect to pay for a repair job? Generally speaking, it should cost you a minimum of five dollars per hour for all repair work, plus materials. This includes the repairman's salary as well as certain overhead costs. Remember, if you stop

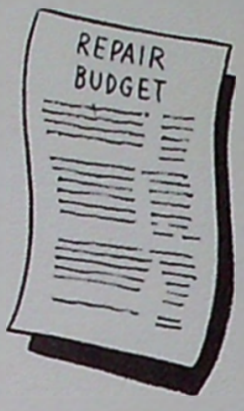
a repairman for unnecessary conversation for an hour there should be a five dollar charge, just as any other business specializing in ser--vices.

The instrument repairman is an expert in his field, and the only product that the repairman has to sell is his time. There is no such thing as "special-bargains" in repairing. You actually get what you pay for. Usually a repairman can give you some sort of an estimate on how long it will take for the repair job as well as the approximate cost or estimate of the repairs.

The cost of a factory overhaul on clarinets varies from about $24.00 to $32.00, depending on condition of instrument, time necessary to overhaul and other factors. You should expect to pay this amount from any competent repairman. If the overhaul charge is much less, chances are you are not getting a competent job, or corners are being cut. We recommend that clarinets be overhauled once a year.

Since you are being charged for the length of time it takes to make the repair, there would be no set amount for repadding a key, for example. The register key, being very easy to repad, might cost 50¢ or 75¢, whereas the F-C, key requiring more time to remove and repad, might cost you twice as much. Along the same line, by repadding all the keys in your clarinet, the cost per pad would be much less than repadding each key separately. The customer must understand this.

INSTRUMENT REPAIR BUDGET FOR THE BAND



In a seminar on music education at Michigan State University, under the instructorship of Clarence Sawhill, a committee composed of Loren Richtmeyer, Earl Gunsalus, Howland Fisk, Paul Shank and Richard Poor wrote "An Administrator's Guide to the Instrumental Music Program in the Public Schools." Under the heading, "Care and Maintenance," they said, The school, once it has purchased instruments, must keep them in repair if they are to give satisfactory service. Nothing is more frustrating to a student than trying to play on a faulty instrument. Keep these few points in mind:

1. The instrument should be looked over and minor repairs made every year.

2. School-owned instruments generally should have a major over-haul every three to five years.

3. Good school-owned instruments will last from eight to ten years with proper care and handling.

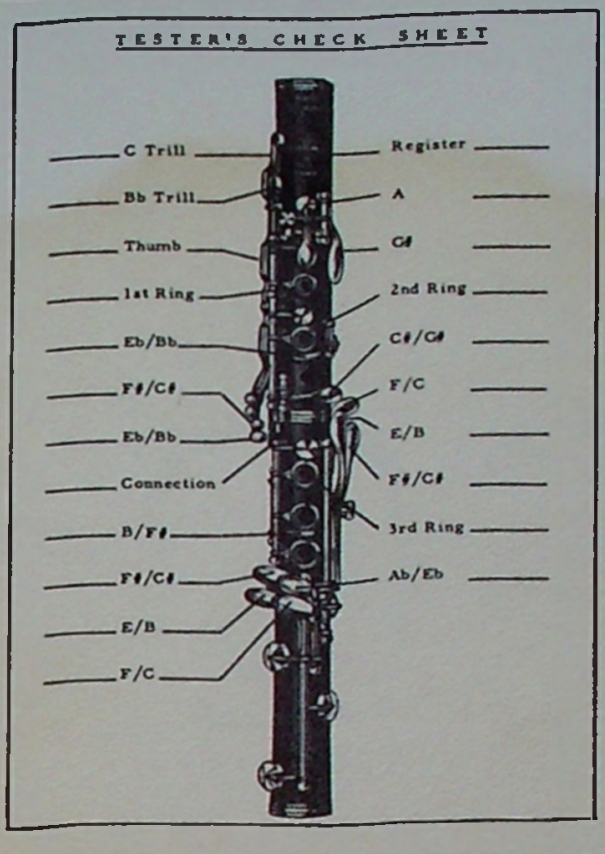
4. Good storage cabinets and instrument cases will prolong the life of the instruments.

5. Students should pay for any damage caused by negligence.

They recommended a definite instrument purchase plan, which included a special repair budget. The amoumt required for repairs would of course vary with the size of the band and number of school owned instruments. The amount of the repair budget could vary from $250 to $2000 a year. The important thing is to determine your particular needs and to set up a budget for repairs.

INSTRUMENT INSPECTION

It is advisable to start a regular "Band Instrument Inspection" on a once-a-month basis. This "inspection," which has been utilized for a long time by army bands, will keep you up-to-date on the condition of the instruments in your band.... both those owned by the school and those owned by the students. In this way, you can catch those student-owned instruments, too, which are in need of repair. Too often students will play all year long on instruments that are not in good playing condition. By starting a monthly "Band Instrument Inspection," you will find that your band will play better and sound better. A list of check-points should be made up of all the different band instruments, and each instrument checked as being "OK" or "Unsatisfactory" on each point. We know you will be pleased with the results of your "Band Instrument Inspection."



CODE

1. Spring Action
   a. Too Heavy
   b. Too Light
   c. Bad Curve
   d. Not Forced in Post
   e. Change
2. Screws
   a. Too Long
   b. Too Short
   c. Lost Motion
   d. End Play
   e. Screw Head
   f. Replace
3. Travel
   a. Too High
   b. Too Low
4. Key Corks
   a. Too Thick
   b. Too Thin
   c. Replace
5. Pads
   a. Back Not Covering
   b. Front Not Covering
   c. Change Pad
   d. Clean Pad
   e. Pad Too Thick
   f. Pad Too Thin
   g. Too Much Impression
   h. Too Little Impression
   i. Coordinate
6. Keys
   a. Solder
   b. Clean Solder
   c. Remove Marks
   d. Polish
   e. Line Up
7. Body Scratches
   a. Upper
   b. Lower
   c. Barrel
   d. Bell

Remarks _____

BAND INSTRUMENT REPAIRING MANUAL
- by Erick Brand
Elkhart, Indiana

CLARINET REPAIRING
- by Ralph F. Verre
1041 North Catalina Ave.
Pasadena, California

INSTRUMENT CARE
- H. N. White Co.
5225 Superior Avenue
Cleveland, Ohio

WOODWIND REPAIRS
- Lyons Band Inst. Co.
223 W. Lake
Chicago, Illinois

HOW TO CARE FOR YOUR INSTRUMENT
- C. G. Conn Corp.
Elkhart, Indiana

INSTRUMENT REPAIR CIRCULARS
- Ferree's Band Inst. Tools & Supply Co.
110 Calhoun Street
Battle Creek, Mich.

FLUTE REPAIR CIRCULARS
- Artley Inc.
Box 741 North Side
Elkhart, Indiana

OTHER BOOKS ON REPAIRING

Following is a list of books which you can order to get more information on instrument repairing.

In addition Leblanc - Kenosha maintains a special "Repair Advice Service" for all band directors and other musicians. Your individual repair problems will be promptly answered by writing to this department. There is no charge for this for it was developed as a special service to aid you in your particular repair problems.

SECTIONS OF THE CLARINET

MOUTHPIECE

BARREL

UPPER JOINT

LOWER JOINT

BELL

"Care for your clarinet as you would any valued possession"

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